Smart LDAR

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Comparison

- Method 21
- Labor Intensive
- 100-500 ppm
- 90% of all emissions come from 1% of the leaks

- Smart LDAR
- 3000 components per hour
- Emissions are measured in gr/hr

Technical Advantages

- Optical Imaging leak surveys 20 times faster than traditional methods
- Finds the bigger leaks faster
- Pinpoints the exact location of the leak
- Survey areas of safety concerns from a distance
- Finds safety issues before they happen

Changes in LDAR Programs

Alternate Work Practice (1q 2007) docket # EPA-HQ-OAR-2003-0199

DOT approval for annual leak surveys

Best work practice for Ships & Barges

Floating roof inspections

Other Uses for the Hawk Leak Detection System

- Transmission and Gathering Lines
- Refineries and Petro-Chemical Plants
- LDAR programs for Ships & Barges
- Gas Processing Plants
- Tank Farms
- Turn arounds, Start up's and Shut Down's
- Emergency Response

Past

- ~5 side by side studies comparing Method 21 to Smart LDAR
- ~Fugitive Emissions monitoring outside traditional components
- ~Floating roof monitoring
- ~Houston Ship channel and Baton Rouge projects

Future

- Smart LDAR pilot projects and Studies
- ~Baton Rouge projects
- ~Smart LDAR

Warning

The video's contained in the rest of this presentation are of very large environmental emissions and are best described as

Shock and Awe

Viewer discretion is advised.

Caution H2S

Safety is always first

Product Loss

Environmental Emissions



The invisible becomes visible

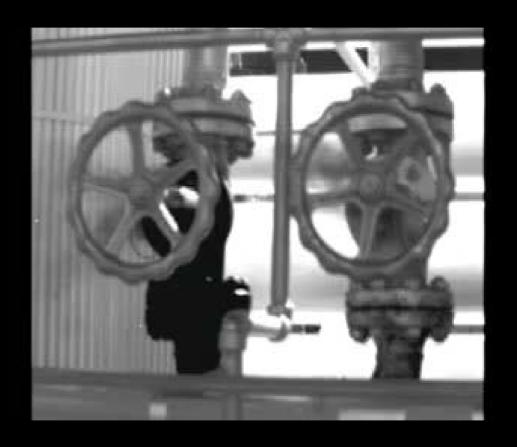
Slotted guide pole



Twin Sisters

Pinpoint leak with one scan

Survey 3000 Components per hour



Birthday cake

Survey Floating roof tanks from the landing



Hurricane Katrina

Oil spill



Hurricane Katrina

Canal spill



Lawnmower Gas

Emissions are everywhere



Service Stations

This is why you don't smoke at the gas station

